

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P130652

Luminaire Tested: **TBLED-LD1-6-M-UNV-L840-CD1-DIMRF-LW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P130652  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25346)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: TBLED-LD1-6-M-UNV-L840-CD1-DIMRF-LW  
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.  
MEDIUM DISTRIBUTION WITH LUMAWATT WIRELESS SENSOR.  
Light Source: (160) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5350.6 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
CIE Type: Direct

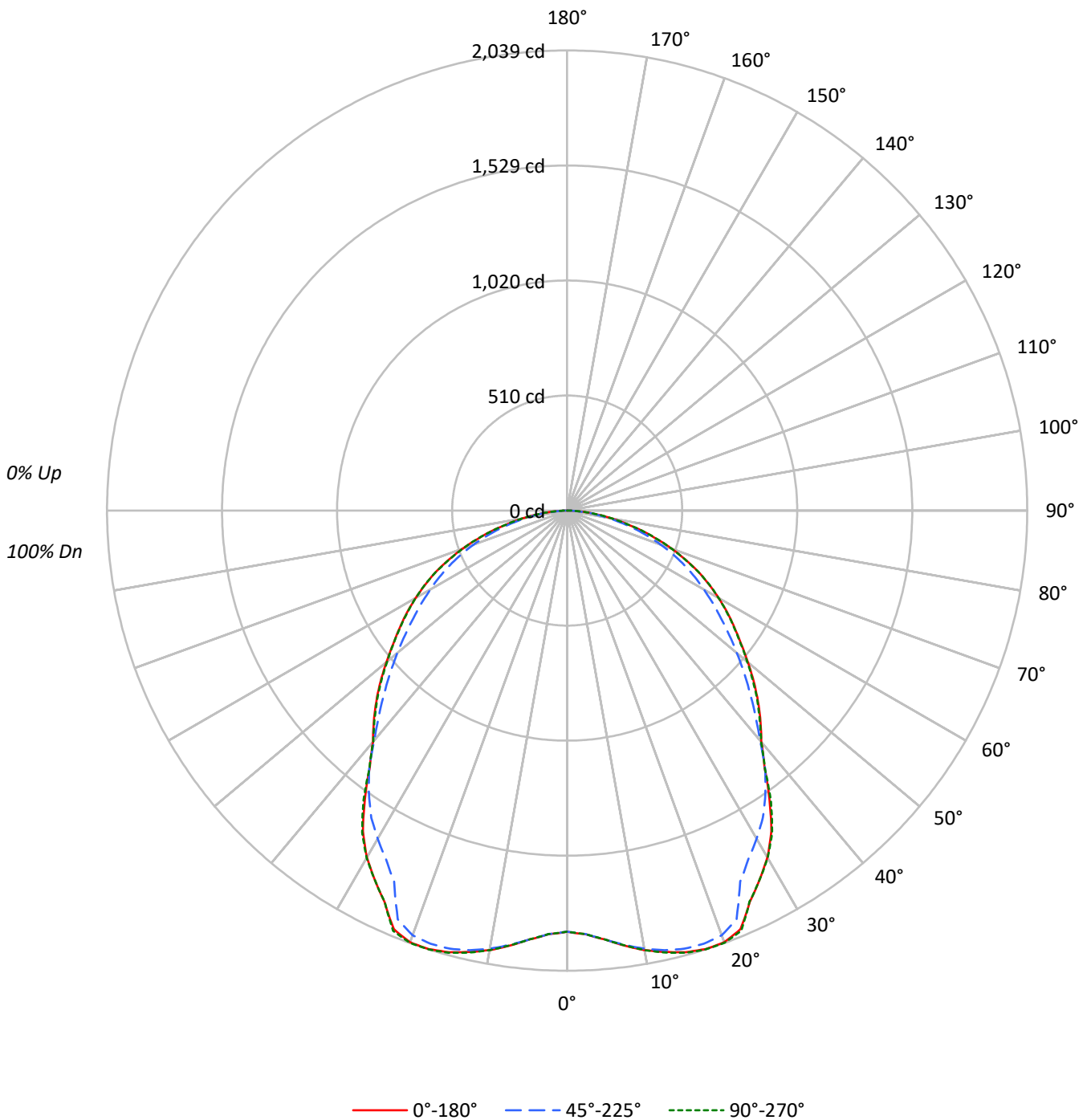
Input Watts (W): 51  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	20212	20212	20212
5°	20739	20739	20732
10°	21746	21674	21746
15°	22709	22532	22739
20°	23458	23078	23487
25°	22875	21672	22851
30°	22194	20994	22219
35°	20665	20247	20813
40°	18925	18787	18898
45°	18317	17561	18256
50°	17611	16548	17546
55°	17091	15711	17054
60°	16784	15160	16784
65°	16437	14700	16386
70°	15603	13978	15580
75°	14204	12853	14259
80°	12428	11281	12472
85°	10784	9405	10784



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.3	3.4
10°-20°	571.2	10.7
20°-30°	863.9	16.1
30°-40°	943.0	17.6
40°-50°	925.7	17.3
50°-60°	810.4	15.1
60°-70°	609.0	11.4
70°-80°	348.1	6.5
80°-90°	94.9	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1619.4	30.3
0°-40°	2562.4	47.9
0°-60°	4298.5	80.3
0°-90°	5350.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5350.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1866	1866	1866	1866	1866	
5°	1908	1908	1908	1908	1907	184
15°	2026	2024	2010	2025	2028	573
25°	1914	1917	1814	1917	1912	884
35°	1563	1487	1532	1481	1574	975
45°	1196	1220	1147	1213	1192	922
55°	905	919	832	916	903	812
65°	642	616	574	616	640	631
75°	340	326	307	327	341	360
85°	87	82	76	82	87	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5
2.5°	1879.0	1877.7	1878.3	1877.7	1879.0	1879.0	1878.3	1879.0	1878.3	1878.3	1878.3
5°	1907.9	1906.6	1907.3	1905.9	1907.9	1908.6	1907.9	1908.6	1908.6	1907.9	1907.9
7.5°	1944.1	1941.5	1942.1	1940.8	1942.8	1942.8	1942.1	1942.1	1941.5	1940.8	1941.5
10°	1977.7	1976.3	1976.3	1975.7	1977.0	1976.3	1975.0	1974.4	1971.7	1971.1	1972.4
12.5°	2003.3	2004.6	2006.6	2006.6	2005.9	2005.3	2002.0	2000.0	1996.1	1995.4	1996.7
15°	2025.7	2026.3	2028.3	2027.7	2025.7	2022.4	2019.1	2015.2	2011.9	2009.9	2011.9
17.5°	2037.5	2037.5	2036.9	2034.9	2030.9	2027.0	2022.4	2018.4	2015.2	2012.5	2015.2
20°	2035.6	2035.6	2032.3	2028.3	2021.7	2015.8	2011.2	2007.3	2004.0	2002.7	2004.6
22.5°	2007.9	2009.9	2007.3	2006.6	2001.3	1993.4	1984.2	1974.4	1963.8	1960.6	1965.2
25°	1914.5	1913.2	1914.5	1927.0	1930.3	1904.0	1870.4	1839.5	1821.1	1813.8	1823.7
27.5°	1845.4	1844.1	1827.7	1801.3	1765.2	1748.1	1750.7	1748.1	1743.4	1740.2	1744.8
30°	1775.0	1765.2	1720.4	1672.4	1637.5	1632.3	1647.4	1666.5	1678.3	1679.0	1677.0
32.5°	1684.2	1664.5	1606.6	1569.8	1555.3	1552.7	1557.3	1577.0	1604.0	1614.5	1600.7
35°	1563.2	1552.0	1516.5	1492.8	1488.2	1484.9	1477.0	1486.9	1520.4	1531.6	1519.1
37.5°	1437.5	1448.0	1432.9	1424.4	1423.7	1417.1	1405.9	1407.3	1425.0	1440.8	1423.0
40°	1338.8	1349.4	1359.2	1358.6	1355.9	1346.1	1337.5	1332.9	1331.6	1329.0	1332.9
42.5°	1268.4	1264.5	1283.6	1294.1	1287.5	1280.9	1273.7	1270.4	1246.1	1234.9	1249.4
45°	1196.1	1194.8	1207.9	1230.3	1225.0	1215.8	1213.8	1200.7	1159.2	1146.7	1162.5
47.5°	1121.7	1127.0	1138.8	1157.3	1160.5	1152.6	1146.7	1119.8	1077.6	1062.5	1077.0
50°	1045.4	1057.3	1073.7	1080.9	1084.2	1079.6	1075.7	1040.8	998.0	982.3	998.7
52.5°	972.4	988.8	1010.5	1004.6	1002.0	1004.0	997.4	965.8	924.4	905.3	925.0
55°	905.3	921.1	940.1	928.3	915.8	923.0	917.1	892.1	855.9	832.2	854.6
57.5°	842.1	852.0	867.1	851.3	836.9	845.4	839.5	819.7	786.2	765.8	787.5
60°	775.0	782.9	791.5	776.3	761.2	765.8	763.2	745.4	717.8	700.0	716.5
62.5°	707.9	711.9	717.8	701.3	688.8	688.8	687.5	670.4	648.7	638.8	648.0
65°	641.5	640.8	642.8	626.3	617.1	615.8	613.2	597.4	580.3	573.7	580.9
67.5°	566.5	567.8	568.4	553.3	546.1	542.8	540.8	526.3	512.5	507.9	513.2
70°	492.8	493.4	493.4	479.6	474.3	469.1	467.1	455.9	444.7	441.5	446.1
72.5°	415.1	419.7	417.8	406.6	402.6	396.1	394.7	387.5	379.0	374.3	379.0
75°	339.5	346.1	344.1	334.2	329.6	323.0	323.7	319.7	310.5	307.2	311.8
77.5°	266.5	270.4	271.1	265.8	258.6	254.0	255.9	255.3	248.7	240.8	246.7
80°	199.3	204.0	204.6	200.0	194.1	190.1	192.8	192.8	187.5	180.9	186.2
82.5°	138.8	142.1	142.1	139.5	136.8	132.9	134.2	134.9	131.6	125.0	129.6
85°	86.8	87.5	86.2	84.2	82.2	80.9	80.9	82.2	79.6	75.7	78.9
87.5°	32.2	32.9	32.2	34.2	32.2	31.6	32.2	34.2	31.6	31.6	32.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5	1866.5
2.5°	1878.3	1879.0	1879.0	1878.3	1878.3	1878.3	1877.7	1878.3
5°	1907.9	1908.6	1908.6	1907.3	1907.9	1907.3	1906.6	1907.3
7.5°	1942.1	1943.4	1942.8	1943.4	1944.1	1942.8	1942.8	1942.8
10°	1973.7	1975.7	1977.0	1978.3	1979.0	1977.7	1978.3	1977.7
12.5°	1999.4	2003.3	2005.9	2007.3	2008.6	2008.6	2007.3	2005.9
15°	2015.2	2019.8	2023.1	2027.0	2029.6	2030.3	2029.0	2028.3
17.5°	2019.1	2023.1	2027.7	2031.6	2035.6	2038.2	2039.5	2038.8
20°	2007.9	2011.2	2016.5	2022.4	2027.7	2032.9	2036.9	2038.2
22.5°	1975.7	1984.9	1994.8	2002.0	2006.6	2009.2	2011.2	2015.8
25°	1843.4	1867.8	1903.3	1930.3	1925.7	1913.2	1908.6	1912.5
27.5°	1749.4	1746.7	1742.8	1763.8	1796.7	1825.7	1839.5	1846.1
30°	1665.2	1645.4	1627.0	1634.2	1667.8	1717.8	1759.9	1777.0
32.5°	1577.0	1550.0	1547.4	1552.0	1567.8	1601.3	1658.6	1690.8
35°	1484.2	1469.8	1477.7	1483.6	1488.8	1505.9	1545.4	1574.4
37.5°	1401.3	1398.7	1409.2	1416.5	1419.1	1427.7	1442.8	1438.8
40°	1328.3	1330.3	1339.5	1347.4	1352.7	1353.3	1344.1	1336.9
42.5°	1262.5	1271.1	1271.1	1280.9	1290.1	1277.6	1258.6	1263.8
45°	1195.4	1209.2	1208.6	1217.1	1225.7	1204.0	1188.2	1192.1
47.5°	1116.5	1142.8	1146.7	1155.9	1155.9	1133.6	1121.1	1116.5
50°	1036.2	1070.4	1075.0	1080.3	1077.6	1069.1	1052.6	1041.5
52.5°	961.9	994.1	998.7	996.7	1002.0	1005.9	983.6	969.8
55°	888.8	913.8	919.7	913.2	925.7	936.9	915.8	903.3
57.5°	816.5	835.5	840.8	835.5	849.4	861.9	848.0	839.5
60°	743.4	760.5	763.8	759.2	775.7	786.9	780.3	775.0
62.5°	671.7	683.6	686.9	688.8	698.7	711.9	710.5	709.9
65°	599.4	611.9	613.2	619.1	625.7	642.8	639.5	639.5
67.5°	529.0	537.5	539.5	548.7	551.3	567.8	565.8	563.2
70°	455.9	464.5	467.1	476.3	480.3	493.4	494.1	492.1
72.5°	388.8	392.1	394.7	403.3	406.6	419.1	419.1	416.5
75°	320.4	319.7	322.4	330.9	334.2	344.7	344.1	340.8
77.5°	255.9	252.6	254.6	260.5	264.5	272.4	269.7	267.1
80°	195.4	190.1	190.8	196.7	199.3	204.6	202.0	200.0
82.5°	138.2	133.6	132.2	136.8	140.8	141.4	140.8	139.5
85°	84.2	80.3	80.9	82.9	85.5	85.5	86.8	86.8
87.5°	32.9	30.9	30.9	32.9	32.9	33.6	32.9	31.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)